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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/734,864	12/12/2003	James J. Rhodes	RPS920030192US1	1539
25299	7590	05/31/2006	EXAMINER	
IBM CORPORATION PO BOX 12195 DEPT YXSA, BLDG 002 RESEARCH TRIANGLE PARK, NC 27709			SOMMERFELD, PAUL J	
			ART UNIT	PAPER NUMBER
			2168	

DATE MAILED: 05/31/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/734,864	Applicant(s) RHODES, JAMES J.	
	Examiner Paul J. Sommerfeld	Art Unit 2168	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 December 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 December 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>4/19/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 15-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 15-18 and 20-22 recite "circuitry operable for" performing the steps of the method of the present invention. The recited language "circuitry operable for" makes it unclear as to whether the steps for which the claimed circuitry is operable to perform are limitations in claims 15-22, or are simply optional. See MPEP § 2111.04.

For purposes of examination, in claims 15-18 and 20-22, "circuitry operable for" is interpreted as any circuitry that is capable of performing the steps recited in claims 15-18 and 20-22. This includes personal computers (PCs), mainframes, servers, and the circuitry that constitutes them.

Claim 19 is rejected as being dependent on rejected claim 18.

3. Claim 16 recites the limitation "said third computer system" in line. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-22 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshida (U.S. Publication 2004/0049700 A1).

As to claim 1, Yoshida teaches method for backing up and restoring files (see Abstract) comprising the steps of:

installing a daemon application on systems with available disk space to store backup files (item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs. Lines 4-5 describe performing a backup of files in the space available on the user PCs.);

receiving a first metadata from said installed daemon applications, wherein said first metadata comprises information regarding available disk space (lines 4-6 of paragraph [0025], backup client software on the user PCs sends to a backup control server information regarding the available capacity of the hard drive belonging to the user PC. Clearly, the backup client software sends the metadata regarding available space, while the control server receives the information.);

creating a master file, wherein said master file comprises information regarding a list of systems available to store backup files and an amount of available disk space to store backup files for each system available to store backup files (lines 4-6 and 10-13 of paragraph [0025], a central backup server collects from the user PCs information including the available hard drive space on each user PC. The central backup server uses this collection of information to determine which of the user PCs are available to store backup data. This collection of information is therefore equivalent to the recited master file.);

installing a backup application on systems to perform a backup operation (item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs. lines 4-8 of paragraph [0024], describes the backup client software performing a backup operation.); and

receiving a request from said backup applications to download said master file (lines 1-6 of paragraph [0025], the backup control server receives a backup request from the backup clients and responds by downloading information regarding each user PC's available hard drive space).

As to claims 2, 9, and 17, Yoshida teaches receiving a list of files to be backed up (Yoshida lines 4-6 of paragraph [0024], backup client sends to the backup control server a list of files to be backed up. Clearly, the backup client software sends the list, while the control server receives the list.); and

selecting two or more systems from said master file to receive backup data (lines 11-14 of paragraph [0031], storing backup data in separate user PCs).

As to claims 3, 10, and 18, Yoshida teaches compressing and encrypting said backup data (Yoshida lines 1-2 of paragraph [0029]); and

storing a second metadata and a key (Lines 1-4 of paragraph [0033], storing second metadata comprising information indicating which systems have backup data stored on them. Because data encryption requires the use of a key for encrypting/decrypting data, storage of a key is inherent.).

As to claims 4, 11, and 19, Yoshida teaches said second metadata comprises one or more of the following information: number of bytes of data backed up in a particular system, systems storing said backup data, type of files in said backup data, ownership of files in said backup data, and who has privileges to execute said backup data (lines 1-4 of paragraph [0033], storing information indicating which systems store backup data).

As to claims 5, 12, and 20, Yoshida teaches transmitting said second metadata and said key to a central system (lines 4-8 of paragraph [0024], information necessary for accessing a backed-up file is sent to the backup control server.).

As to claims 6, 13, and 21, Yoshida teaches receiving a list of files to be restored (lines 1-3 of paragraph [0036]);

determining which systems store said files to be restored using said second metadata (lines 3-5 of paragraph [0036]); and

connecting to one or more daemon applications on one or more systems storing said files to be restored (lines 1-5 of paragraph [0038]).

As to claims 7, 14, and 22, Yoshida teaches receiving said files to be restored from said one or more daemon applications (Yoshida lines 5-7 of paragraph [0038]);

uncompressing and decrypting said files to be restored using said key (lines 1-5 of paragraph [0039], restoring files by an inversion of the division and encryption process, which, as indicated on lines 1-2 of paragraph [0029], comprises compressing and encrypting the files. Because the inversion process restores the files, as indicated on lines 11-12 of paragraph [0039], the inversion process inherently involves uncompressing and decrypting the backed up data. Using a key to decrypt the backed up data is inherent, since all known methods of encryption/decryption require the use of a key.)

restoring said files to be restored (lines 11-12 of paragraph [0039]);

As to claim 8, Yoshida teaches a computer program product embodied in a machine readable medium for backing up and restoring files (item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs. Because

the software is installed on the PCs, it must be embodied on a machine-readable medium, such as a hard drive or random access memory.).

For the remainder of the claim, the Applicant is referred to the arguments, remarks, and discussions made regarding claim 1 above.

As to claim 15, Yoshida teaches a system (Fig. 1 and paragraph [0021]), comprising:

- a processor (item 10 in Fig. 1, a PC inherently includes a processor.); and
- a memory unit coupled to said processor, wherein said memory unit is operable for storing a computer program for backing up and restoring files (item 10 in Fig. 1, a PC inherently includes a memory unit coupled to a processor. Item 14 in Fig. 1, lines 5-8 of paragraph [0021], shows backup client software installed on user PCs.);

- wherein said processor, responsive to said computer program, comprises:
 - circuitry operable for installing a daemon application on systems with available disk space to store backup files (item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs.);

- circuitry operable for receiving a first metadata from said installed daemon applications, wherein said first metadata comprises information regarding available disk space (lines 4-6 of paragraph [0025], backup client software on the user PCs sends to a backup control server information regarding the available capacity of the hard drive belonging to the user PC. Clearly, the backup client software sends the metadata regarding available space, while the control server receives the information.);

circuitry operable for creating a master file, wherein said master file comprises information regarding a list of systems available to store backup files and an amount of available disk space to store backup files for each system available to store backup files (lines 4-6 and 10-13 of paragraph [0025], a central backup server collects from the user PCs information including the available hard drive space on each user PC. The central backup server uses this collection of information to determine which of the user PCs are available to store backup data. This collection of information is therefore equivalent to the recited master file.);

circuitry operable for installing a backup application on systems to perform a backup operation (item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs. Lines 4-8 of paragraph [0024], describe the backup client software performing a backup operation.); and

circuitry operable for receiving a request from said backup applications to download said master file (lines 1-6 of paragraph [0025], the backup control server receives a backup request from the backup clients and responds by downloading information regarding each user PC's available hard drive space).

As to claim 16, Yoshida teaches a system (Fig. 1 and paragraph [0021]), comprising:

a first computer system (item 10 in Fig. 1) comprising:

a first processor (item 10 in Fig. 1, a PC inherently includes a processor);

and

a first memory unit coupled to said first processor, wherein said first memory unit is operable for storing a backup application operable for backing up and restoring files (item 10 in Fig. 1, a PC inherently includes a memory unit coupled to a processor. Item 14 in Fig. 1, lines 5-8 of paragraph [0021], shows backup client software installed on user PCs.);

a second and a third computer system (item 10 in Fig. 1, showing at least three user PCs), wherein each of said second and said third computer system comprises:

a second processor (item 10 in Fig. 1, a PC inherently includes a processor);

a second memory unit coupled to said second processor, wherein said second memory unit is operable for storing a daemon application operable for communicating with a central system (item 10 in Fig. 1, a PC inherently includes a memory unit coupled to a processor. Item 14 in Fig. 1, lines 5-8 of paragraph [0021], shows backup client software installed on user PCs.); and

a disk unit, wherein an available capacity of said disk unit is configured to store back-up files (lines 4-5 of paragraph [0022]); and

said central system coupled to said first, said second and said third computer systems (item 20 in Fig. 1), wherein said central system comprises:

a third processor (item 20 in Fig. 1, a server computer inherently includes a processor); and

a third memory unit coupled to said third processor, wherein said third memory unit is operable for storing a computer program for installing said

daemon applications on said second and third computer systems and installing said backup application on said first computer system for backup and restoration of files (item 20 in Fig. 1, a server computer inherently includes a memory unit coupled to a processor. Item 14 in Fig. 1, lines 5-8 of paragraph [0021], shows backup client software installed on user PCs.);

wherein said third processor, responsive to said third computer program, comprises:

circuitry operable for installing said daemon application on said second and said third computer system (Yoshida item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs. Lines 4-5 describe performing a backup of files in the space available on the user PCs.);

circuitry operable for receiving a first metadata from said installed daemon applications, wherein said first metadata comprises information regarding available disk space on said second and said third computer systems (lines 4-6 of paragraph [0025], backup client software on the user PCs sends to a backup control server information regarding the available capacity of the hard drive belonging to the user PC. Clearly, the backup client software sends the metadata regarding available space, while the control server receives the information.);

circuitry operable for creating a master file, wherein said master file comprises information regarding a list of systems available to store backup files and an amount of available disk space to store backup files for each system to

store backup files (lines 4-6 and 10-13 of paragraph [0025], a central backup server collects from the user PCs information including the available hard drive space on each user PC. The central backup server uses this collection of information to determine which of the user PCs are available to store backup data. This collection of information is therefore equivalent to the recited master file.);

circuitry operable for installing said backup application on said first computer system to perform a backup operation (item 14 in Fig. 1, lines 5-8 of paragraph [0021], showing backup client software installed on user PCs. Lines 4-8 of paragraph [0024], describe the backup client software performing a backup operation.); and

circuitry operable for receiving a request from said backup application to download said master file (lines 1-6 of paragraph [0025], the backup control server receives a backup request from the backup clients and responds by downloading information regarding each user PC's available hard drive space).

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.


- U.S. Publication 2003/0009587 A1, issued to Harrow et al, for teaching a system and method of peer-to-peer backup.

- U.S. Patent Number 6,728, 751 B1, issued to Cato et al, for teaching a distributed backup of data to clients on a network.
- U.S. Patent Number 6,883,110 B1, issued to Goddard, for teaching a system and method of baking up a server on client machines.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul J. Sommerfeld whose telephone number is 571 272-6545. The examiner can normally be reached on M-F 7:45 am - 4:15pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim T. Vo can be reached on 571 272-3642. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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